

ABSTRACT

A heat transfer regulating mixture having a metallic component A with a melting point T_A and a particulate ceramic component B which is non-wettable by the metallic component A, non-reactive therewith and which has a melting temperature T_B which is higher than both the temperature T_A and a desired operating temperature T_D which is also higher than T_A . The metallic component A and the particulate ceramic component B and the respective amounts will typically be selected to have a higher thermal resistivity above T_A than below T_A . The heat transfer regulating mixture may be incorporated in a thermal flux regulator having the mixture within an enclosure surrounding a heat generating reactor structure.

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